SUPER®

742S

742i

SC742 CHASSIS

USER'S GUIDE

1.0a

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Chapter 1-Safety Information and Technical Specifications

1-1 Safety Information

Electric Static Discharge (ESD) can damage electronic components. To prevent damage to your system board, it is important to handle it very carefully. The following measures are generally sufficient to protect your equipment from ESD.

Static-Sensitive Devices

- Use a grounded wrist strap designed to prevent static discharge.
- Touch a grounded metal object before removing the board from the antistatic bag.
- Handle the board by its edges only; do not touch its components, peripheral chips, memory modules or gold contacts.
- When handling chips or modules, avoid touching their pins.
- Put the motherboard and peripherals back into their antistatic bags when not in use.
- For grounding purposes, make sure your computer chassis provides excellent conductivity between the power supply, the case, the mounting fasteners and the motherboard.
- Use only the correct type of onboard CMOS battery as specified by the manufacturer. Do not install the onboard battery upside down to avoid possible explosion.

To avoid personal injury and property damage, please carefully follow all the safety steps listed below:

Before accessing the chassis:

1. Turn off all peripheral devices connected to the SC742.
2. Press the power button to power off the system.
3. Unplug all power cords from the system or the wall outlets.
4. Disconnect all the cables and label the cables for easy identification.
5. Use a grounded wrist strap designed to prevent static discharge when handling components.

Removing the chassis covers:

After completing the above steps, you can remove the covers and install components/peripheral devices into the chassis as described in Chapter 2.

1. Unlock and remove the screws and fasteners to remove the cover or components.
2. Save all the screws and fasteners for later use. (If necessary, label these screws or fasteners for easy identification.)
3. Follow the instruction given in Chapter 2 to remove the chassis covers.

Reinstalling the chassis covers:

To maintain proper system cooling and airflow, do not operate the system without installing all chassis covers back to the chassis. To reinstall the chassis covers, please follow the steps listed below:

1. Make sure that all components and devices are securely fastened on the chassis and there are no loose parts/screws inside the chassis.
2. Make sure that all cables are properly connected to the connectors and ports.
3. Use the original screws or fasteners to install the covers to the chassis.
4. Be sure to lock to the chassis or the system to prevent unauthorized access.
5. For proper cooling, enclose the chassis with covers before operating the system.

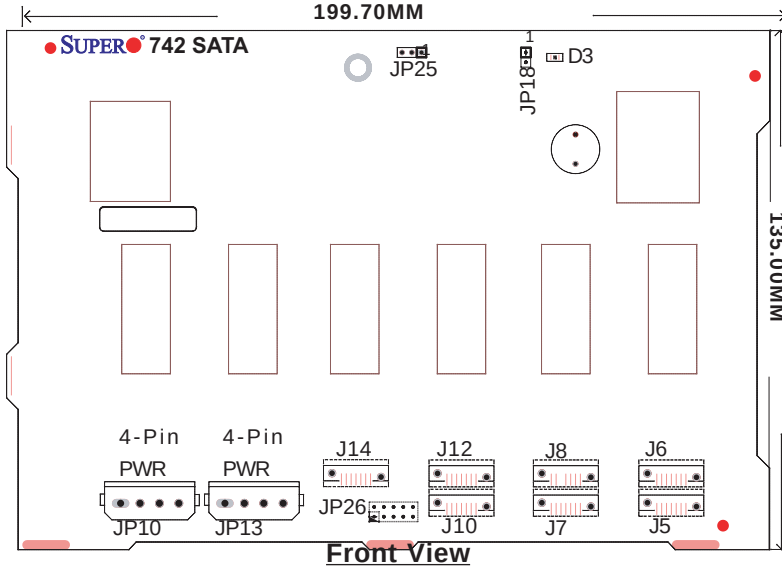
An important note to the user

All images and graphics shown in this manual were based upon the latest chassis Revision available at the time of publishing. The chassis you've received may or may not look exactly the same as the ones shown in this manual.

1-2 Technical Specifications

A. SUPER 742 SATA Back Panel

A-1 Connector/Jumper Locations



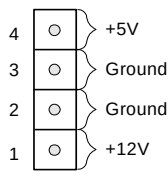
Front View

A-2 Connectors

D3: Overheat LED Indicator	
J5: SATA #0	J6: SATA#1
J7: SATA #2	J8: SATA#3
J10: SATA #4	J12: SATA#5
J14: SATA #6	

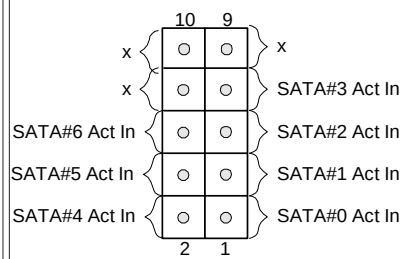
JP10/ JP13: 4-Pin PWR Connectors

4-Pin PWR Connectors Pin Definitions



JP26: ACT In

Act In (JP26) Pin Definitions



A-3 Jumpers

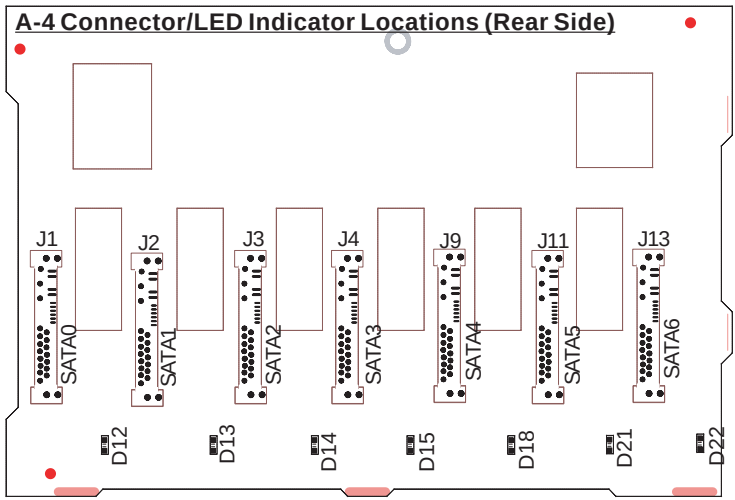
JP18: Buzzer Reset

Buzzer Reset (JP18)	
Open	Disabled
Closed	Enabled (*Default)

JP25: Overheat LED

Overheat Temperature (JP25)	
Pins	Definition
Open	45^0 C
1-2	50^0 C
2-3	55^0 C

A-4 Connector/LED Indicator Locations (Rear Side)



Rear View (*Not drawn to scale)

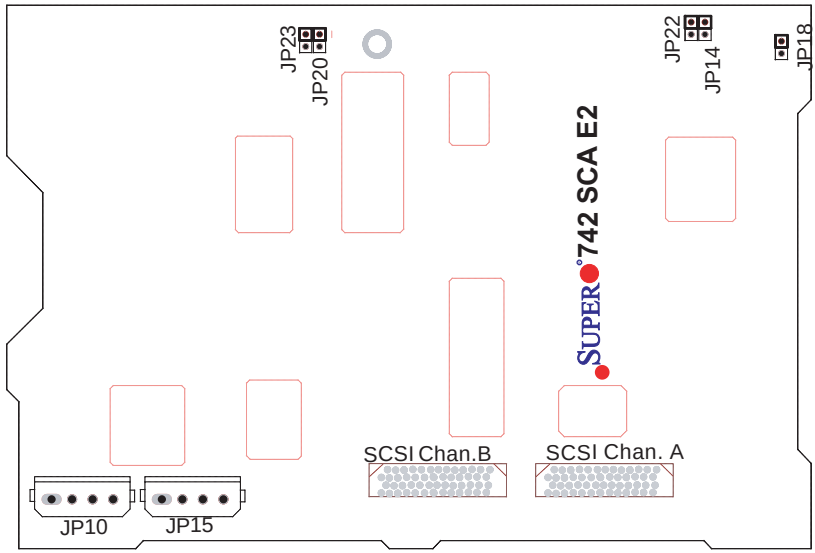
A-5 Activity LED Indicators

Activity LED Indicators	
LED#	**Drive#**
D12	SATA#0: Active
D13	SATA#1: Active
D14	SATA#2: Active
D15	SATA#3: Active
D18	SATA#4: Active
D21	SATA#5: Active
D22	SATA#6: Active

B. SCA 74-E2 SCSI Dual Channel Back Panel (W/GEM318)

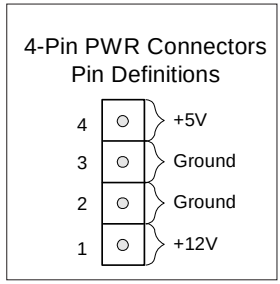
Front View (*Not Drawn to Scale)

B-1 Connector/Jumper Locations



B-2 Connectors

JP10/JP15: 4-Pin PWR Connectors



B-3 Jumpers

JP18: Buzzer Reset

Buzzer Reset (JP18)	
Open	Disabled
Closed	Enabled (*Default)

SCSI Channel A Jumpers

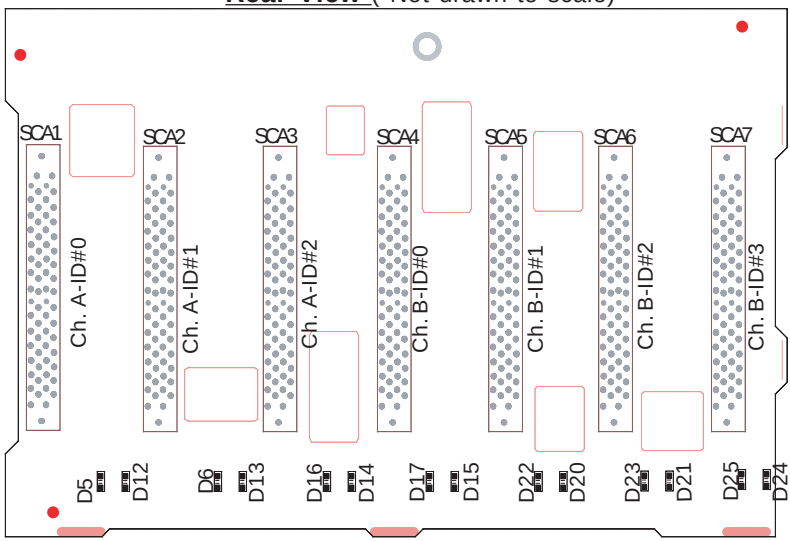
Channel A Jumpers	
Jumpers	Definition
JP14	Ch.A Delay Start
JP22	Ch.A Remote Start

SCSI Channel B Jumpers

Channel B Jumpers	
Jumpers	Definition
JP20	Ch.B Delay Start
JP23	Ch.B Remote Start

B-4 Connector/LED Indicator Locations (Rear)

Rear View (*Not drawn to scale)



B-5 LED Indicators (Rear)

SCSI Drive Fail LED Indicators

Drive Fail LED Indicators		
LED#	**Drive ID#**	**SCA#**
D5	Channel A-ID#0	SCA 1: Fail
D6	Channel A-ID#1	SCA 2: Fail
D16	Channel A-ID#2	SCA 3: Fail
D17	Channel B-ID#0	SCA 4: Fail
D22	Channel B-ID#1	SCA 5: Fail
D23	Channel B-ID#2	SCA 6: Fail
D25	Channel B-ID#3	SCA 7: Fail

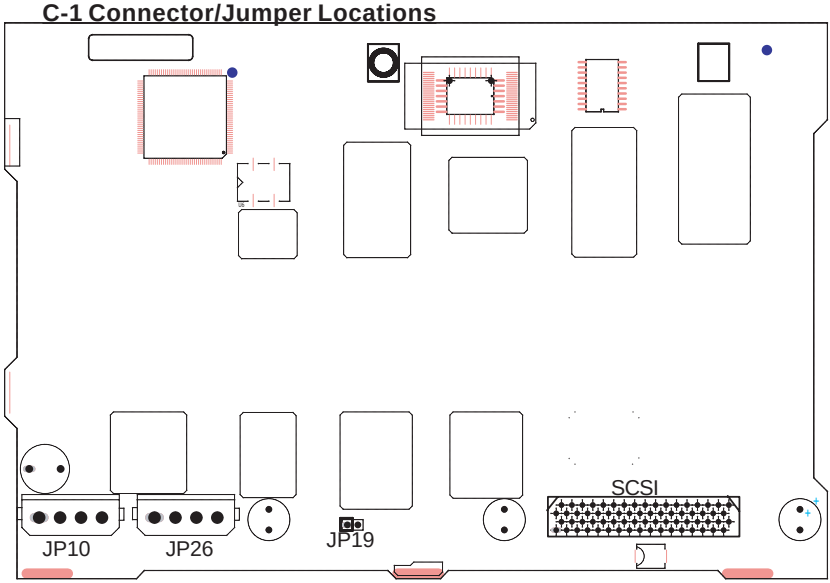
SCSI Drive Activity LED Indicators

Drive Activity LED Indicators		
LED#	**Drive ID#**	**SCA#**
D12	Channel A-ID#0	SCA 1: Active
D13	Channel A-ID#1	SCA 2: Active
D14	Channel A-ID#2	SCA 3: Active
D15	Channel B-ID#0	SCA 4: Active
D20	Channel B-ID#1	SCA 5: Active
D21	Channel B-ID#2	SCA 6: Active
D24	Channel B-ID#3	SCA 7: Active

C. SCA 742 SCSI Single Channel Back Panel (w/GEM359)

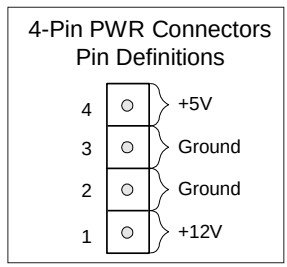
Front View (*Not Drawn to Scale)

C-1 Connector/Jumper Locations



C-2 Connectors

JP10/JP26: 4-Pin PWR Connectors



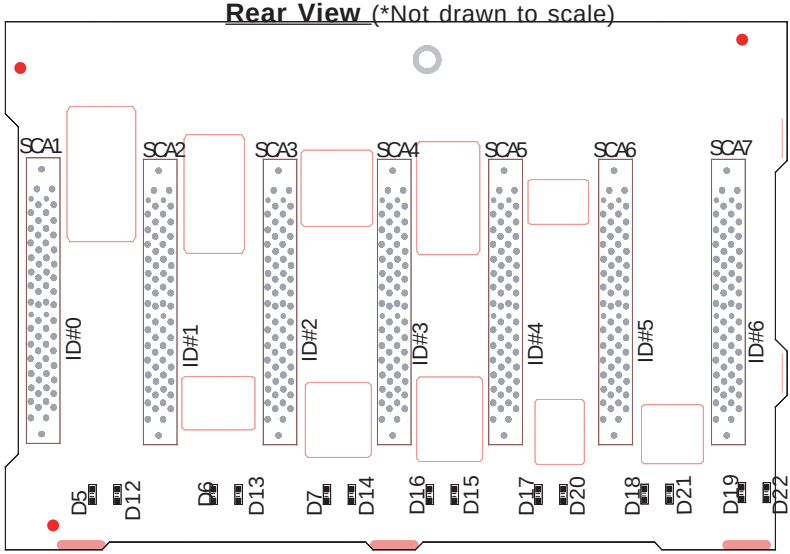
C-3 Jumpers

JP19: Buzzer Reset

Buzzer Reset (JP19)	
Open	Disabled
Closed	Enabled (*Default)

C-4 Connector/LED Indicator Locations (Rear)

Rear View (*Not drawn to scale)



C-5 LED Indicators (Rear)

SCSI Drive Fail LED Indicators

Drive Fail LED Indicators		
LED#	**Drive ID#**	**SCA#**
D5	ID#0	SCA 1: Fail
D6	ID#1	SCA 2: Fail
D7	ID#2	SCA 3: Fail
D16	ID#3	SCA 4: Fail
D17	ID#4	SCA 5: Fail
D18	ID#5	SCA 6: Fail
D19	ID#6	SCA 7: Fail

SCSI Drive Activity LED Indicators

Drive Activity LED Indicators		
LED#	**Drive ID#**	**SCA#**
D12	ID#0	SCA 1: Active
D13	ID#1	SCA 2: Active
D14	ID#2	SCA 3: Active
D15	ID#3	SCA 4: Active
D20	ID#4	SCA 5: Active
D21	ID#5	SCA 6: Active
D22	ID#6	SCA 7: Active

D SCSI (Super) GEM Driver Installation (*for the Windows OS)

(*Note: This driver is not necessary for other Operating Systems. If you have two SCA backplanes, you will need to install the driver twice.)

The driver is located on the Super Micro motherboard driver CD or is available for download from our FTP site: ftp://ftp.supermicro.com/driver/Qlogic/

Follow the procedure below to install this driver to your system.

Installing the driver:

1) Right click on “My Computer” and choose “Property”.
2) Select “Hardware” tab and click on “Device Manager”.
3) Open “Other Devices” or wherever “GEM318/GEM359” is on.
4) Right click on this device and choose “Property”.
5) Click on “Driver” tab and choose “Update Driver”.
6) Click “Next” 2 times, uncheck both “Floppy disk drives” and “CD-ROM drives”. Then, select the item- “Specify a location,” and choose “Next”.
7) Click on “Browse” and choose D drive or wherever Supermicro Setup CD is in.
8) Choose “Qlogic” folder and click on “Open”.
9) System will automatically detect GEM318/GEM359 and install the drive from this point on.

or,

1) Right click the "My Computer" icon on your desktop and choose Properties.
2) Click on the Hardware tab and click on "Device Manager" to bring up the list of system devices.
3) You may see one or two yellow question marks (?) that read QLogic GEM318/GEM359 SCSI Processor Device. Right click on these, and choose to uninstall. If two such question marks are present, uninstall both.
4) Click on Action tab and choose "Scan for Hardware Changes". The Hardware Wizard program should start up. Click "Next".
5) At the first prompt, choose “Display a list of known device drivers for the device so that I can choose a specific driver” and click "Next".
6) Choose “Other Devices” and click Next.
7) Choose “Have Disk”, and specify your floppy drive location in the options box. Then, click "Next".
8) Highlight “Enclosure Services Device” and click "Next".
9) Ignore the warning prompt by clicking "Yes".

Notes

Chapter 2 Installation Instructions

The special design of the SC742 chassis allows it to either be used as a tower or as a rackmount system. There are several versions of the chassis, which differ primarily in the power supply and IDE/SCSI configuration. Please refer to the following instructions when working on the SC742.

I. Removing the Chassis Side Cover:

You will need to remove the chassis side cover to:

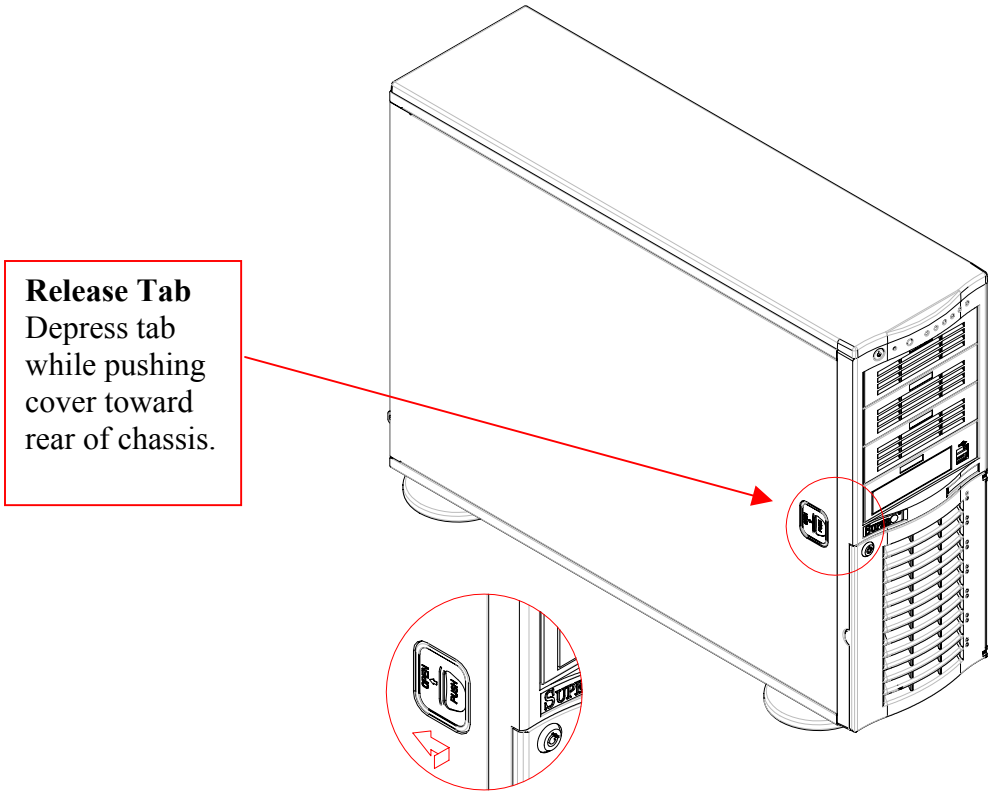
A. Remove or install drives into any of the 5 ¼" drive bays.

B. Replace chassis fans.

C. Access the motherboard.

Procedure:

1. Remove the two screws from the back lip of the side cover (this is the left cover when looking from the front).
2. Push in the release tab on the cover and push the cover back to the rear of the chassis. It should stop after moving about ½ inch.

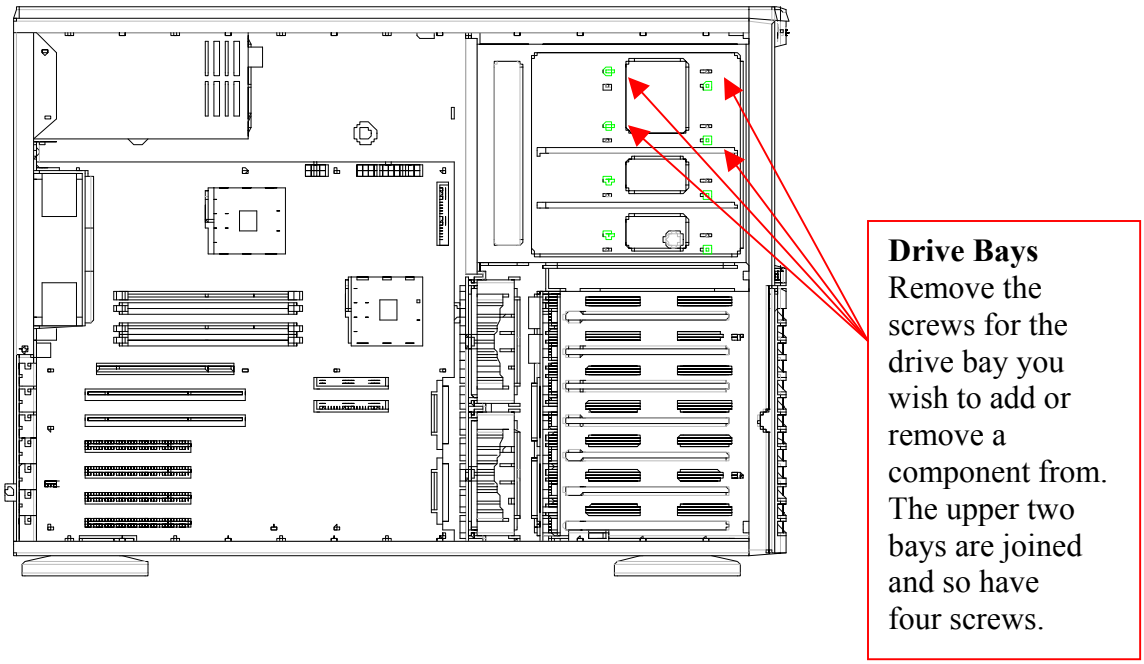


3. You can now lift the side cover up and off the chassis.

A. Removing/Installing Drives into the 5 ¼" Drive Bays:

Procedure:

1. With the side chassis cover removed, you have access to the 5 ¼" drive bays.
2. Remove the screws to the bay you wish to install or remove a component from. The chassis comes with dummy modules in all the bays to maintain proper airflow – these should remain in the chassis until you add a component. Note that the top two bays are combined into a single module. If adding components here you must remove the four screws corresponding two both bays.

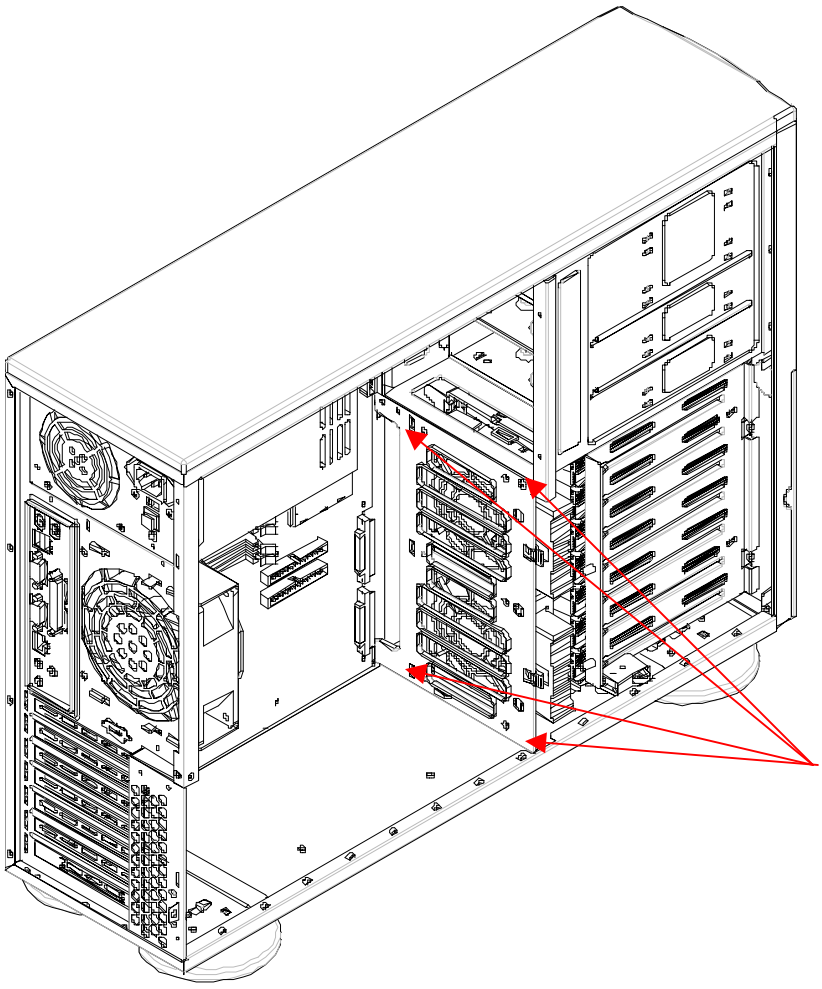

Drive Bays
Remove the screws for the drive bay you wish to add or remove a component from. The upper two bays are joined and so have four screws.

3. After removing the screws, push the drive module out the front of the chassis. For the floppy drive bay, you must first remove the two faceplates.
4. Attach the dummy rails to the new drive and insert the new drive into the bay. Secure it to the chassis with the screws you removed. Remember to plug the data and power cables into the drive. When finished, replace the chassis side cover and secure it with the screws.

B. Removing/Installing Chassis Fans into the 5 ¼" Drive Bays:

Procedure:

1. To remove the hot-swap chassis fans, grasp the fan handle while squeezing the locking tab. Pull the fan unit up and out of the chassis. Reverse this procedure to install a fan (replace with the exact same type of fan).
2. If installing an extended ATX motherboard, you may need to remove the fan mounting bracket the fans are attached to for better access. To do so, first remove both fans by following step one. Then unplug the fan cables from the motherboard. Remove the single screw that attaches the fan mounting bracket to the chassis and lift the bracket out of the chassis. To replace it, reverse the procedure. The mounting bracket has three tabs that fit into holes in the chassis – make sure these tabs are inserted into their corresponding holes to secure the bracket properly.



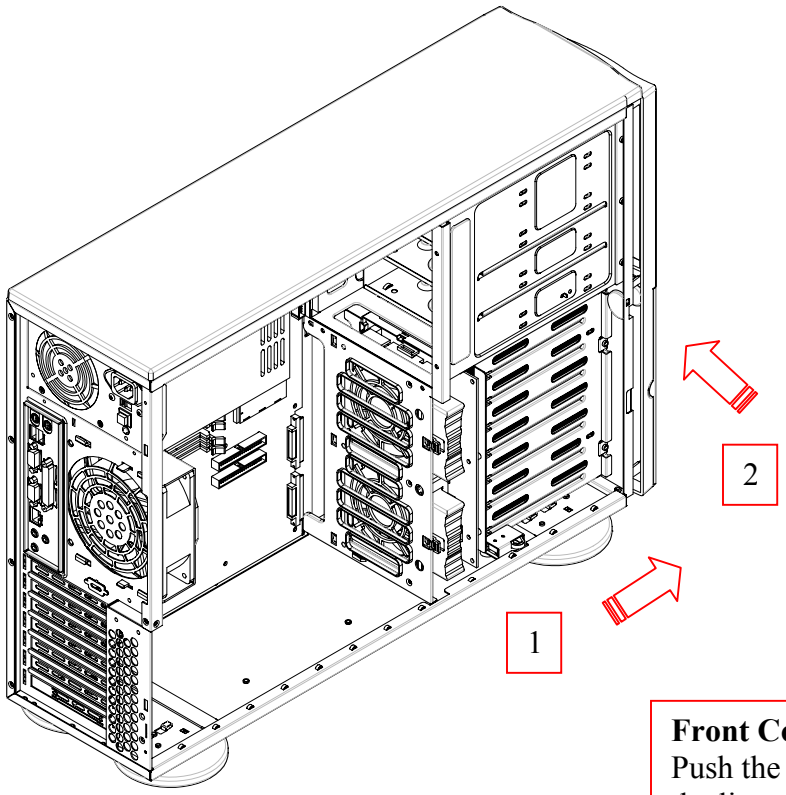
Fans
Remove the screw on the bracket. Pay attention to the tabs and the holes they fit in to.

II. Removing the Front Chassis Cover:

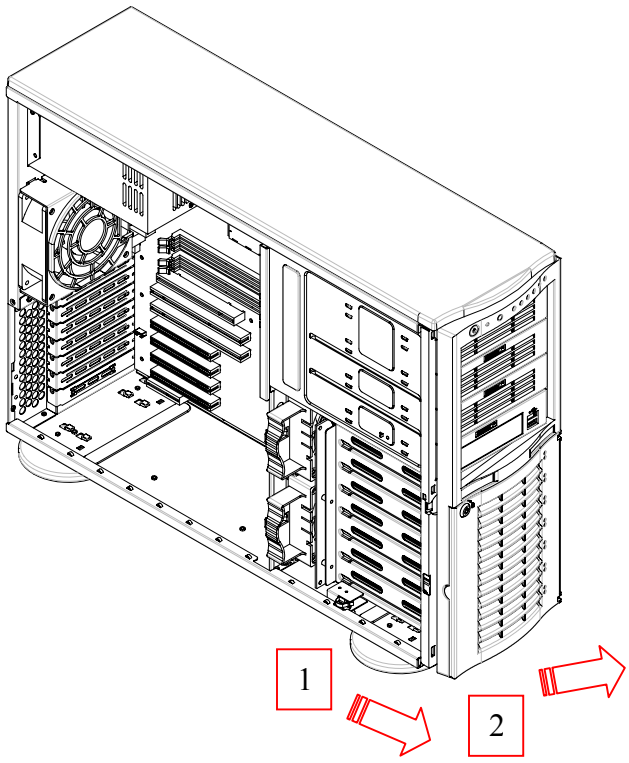
You do not need to remove the front bezel to access the drives:

Procedure

1. Push on the three tabs on the inside left side lip of the front chassis cover. Push the same side of the cover out about ½ inch. Push on the open side of the cover to remove it from the chassis (do not try to swing or pull it straight out after opening the left side).



Front Cover
Push the tabs toward the lip and (1) push that side of the cover out from the chassis. When freed about ½", (2) push the cover toward the other side of the chassis to completely release



III. Removing the Top Chassis Cover and Chassis Feet to Install as Rackmount:

You will need to remove the top chassis cover to add rack rails to the chassis:

Note: Rail assemblies are optional. P/N: CSE-PT26B (black) and CSE-PT26.

Procedure

1. Push the release tab in the center of the cover lip while pushing the cover toward the rear of the chassis at the same time. After the cover stops, lift it off.
2. Each chassis foot has a single screw. Remove the screw then depress the foot's locking tab from the inside of the chassis. Slide the foot off.
3. You can now attach rack rails to the top and bottom (now the sides) of the chassis. See the diagram below.